

Appl. No. 09/783,377

Please replace the paragraph beginning at line 4 of page 16 with the following clean replacement paragraph in accordance with 37 C.F.R. ' 1.121(b)(1)(ii):

92 --Particular embodiments of the present invention pertain to formation of aluminum-comprising physical vapor deposition targets, such as, for example, formation of aluminum-comprising physical vapor deposition targets suitable for liquid crystal display (LCD) applications. Fig. 8 shows a flow-chart diagram of an exemplary process of the present invention. In a first step, an aluminum-comprising cast ingot is formed, and in a second step the ingot is subjected to thermo-mechanical processing. The material resulting from the thermo-mechanical processing is an aluminum-comprising mass. The mass is subsequently deformed by equal channel angular extrusion (ECAE). Such deformation can be accomplished by one or more passes through an ECAE apparatus. Exemplary ECAE apparatuses are described in U.S. Patent No.'s. 5,400,633; 5,513,512; 5,600,989; and 5,590,389. The aluminum-comprising mass can consist of aluminum, or can consist essentially of aluminum. The mass preferably comprises at least 99.99% aluminum. The mass can further comprise less than or equal to about 100 parts per million (ppm) of one or more dopant materials comprising elements selected from the group consisting of Ac, Ag, As, B, Ba, Be, Bi, C, Ca, Cd, Ce, Co, Cr, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hf, Ho, In, Ir, La, Lu, Mg, Mn, Mo, N, Nb, Nd, Ni, O, Os, P, Pb, Pd, Pm, Po, Pr, Pt, Pu, Ra, Rf, Rh, Ru, S, Sb, Sc, Se, Si, Sm, Sn, Sr, Ta, Tb, Te, Ti, Tl, Tm, V, W, Y, Yb, Zn and Zr. The aluminum-comprising mass can consist of aluminum with less than or equal to about 100 ppm of one or more of the dopant materials described above, or consist essentially of aluminum with less than or equal to about 100 ppm of one or more of the dopant materials described above.--